CASAMBI

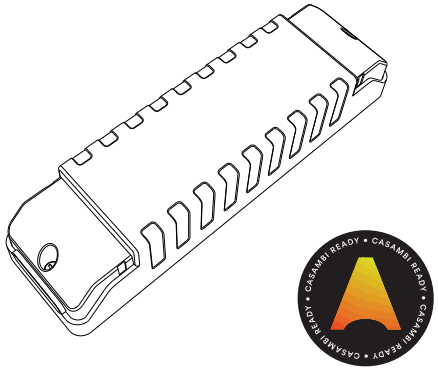
Rayrun

Programmable Constant Current LED Driver

HDL35CB(-B/-E)

Feature

- Output current set from App
- 100% non-flicker DC dimming
- Current trim fine tuning
- Fading time adjustable
- Dimming curve adjustable
- Single color / CCT in one model
- Very low standby power
- Premium low brightness performance



Introduction

This product is a 35W programmable constant current LED driver. Model HDL35CB-E is for single color and HDL35CB-B can be used for CCT or single color. It is Casambi ready and all features are programmable.

The output channel, rated current, fading time and trim level features are all adjustable from the Casambi app. These features allow customer to apply in various application with multiple options.

The advanced full DC dimming scheme is implemented, and it's 100% physically flicker free in whole dimming range. It also has very good low brightness performance, to build elegant low brightness environment and on/off dimming experience.

Setting output current and channel

The rated output current of HDL35CB is from 200mA to 1400mA, it needs to be set from the Casambi app. To set the current and output mode, please make sure the driver is unpaired and powered on. On the Casambi app, click on the driver icon and select 'Change profile' option on the pop up manual (Fig.1). The rated current and working mode can be selected in the list (Fig.2).

The HDL35CB-B model can be configured as CCT or single color model, once be configured as single color model, user can connect lighting fixture to both warm white and cool white channel.

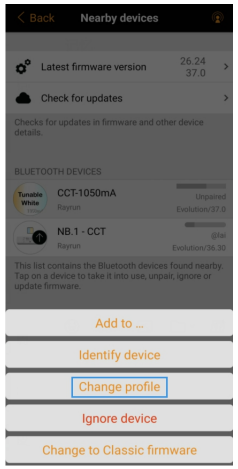


Fig.1



Fig.2

The max output voltage varies with the rated output current. The following table lists the max output voltage and power with different current setting.

Rated current	200mA	250mA	300mA	350mA	400mA	500mA	600mA
Max output Volt.	50V	50V	50V	50V	50V	50V	50V
Max output power	10W	12.5W	15W	17.5W	20W	25W	30W

Rated current	700mA	800mA	900mA	1050mA	1200mA	1400mA
Max output Volt.	50V	43.7V	38.8V	33.3V	29.1V	25V
Max output power	35W					

Automatic LED adaption

This driver verifies the load character on each power on. It will run a load adaption process once the change of load is detected. During the adaption process, the lighting fixture will dim up and down for about 10 seconds. After this process, the driver will match the LED feature and maintain a 0-100% full range physical non-flickering DC dimming. Normally this adaption process happens on the power on moment once the lighting fixture is changed with the brightness is higher than 30%.

For HDL35CB-B, each LED channel must have same voltage and current feature for proper adaption and working. If two channel's voltage and current does not match, the CCT adaption will fail and the driver will only work in single color mode with limited function.

CAUTION: The factory default current is set to minimum value to ensure the safety of initial installation. Please do not set the LED current higher than its rated value, otherwise the lighting fixture can be permanently damaged.

Advanced feature - Current trimming

To fine tune the LED driving current, please pair the driver first and double click on the driver icon to open the setting page. On the setting page please click on the 'Current trim' item in the PARAMETERS section (Fig.3). The output current can be trimmed from 100% to 50% of the rated current at 5% step (Fig.4).

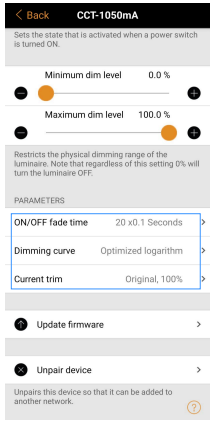


Fig.3



Fig.4

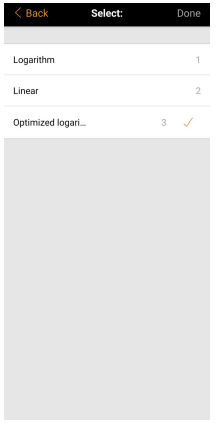


Fig.5

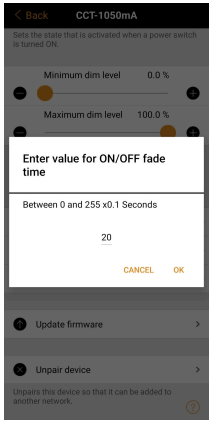


Fig.6

Advanced feature - Change dimming curve

The dimming curve defines the trend of light output strength versus brightness level (0-100%) showing on the app. Please pair the driver first and open the setting page on the app, from the PARAMETERS section, the Dimming curve can be changed from Logarithm, Linear and Optimized logarithm (Fig.5).

The Linear curve will result in even light output power versus the brightness level set on app, but for human eye sensing, the light output change is relatively small at high brightness level.

The Logarithm curve will result in strong brightness change at high brightness level and this will make the brightness adjustment more visible and logical for human eye.

The Optimized logarithm curve is between linear and logarithm, results in an balanced brightness adjustment effect.

Advanced feature - ON/OFF fade time adjust

The on/off fade time can be adjusted on the setting page. Please pair the driver first and open the setting page on the app, from the PARAMETERS section, the ON/OFF fade time can be adjusted from 0-25.5 seconds. User can adjust it by entering value between 0-255 with the step of 0.1 seconds (Fig.6).

Specification

Model	HDL35CB-B	HDL35CB-E
Function	2-in-1 (CCT/Single Color)	Single Color
Rated max power	35W	
Input power	AC 180-240V	
Power Factor	>0.9 at rated load	
Efficiency	>85% at full load	
Output voltage	0-50V DC	
Rated output current (mA)	200, 250, 300, 350, 400, 500, 600, 700, 800, 900, 1050, 1200, 1400	
Fade time	0-25.5 seconds adjustable	
Output current trim	100% to 50% with 5% step	
Dimming method	Full DC dimming	
Standby power consumption	<0.5W	
Working temperature	-20~50°C	
Case temperature	Max 90°C	
Dimension	41x30x150mm	

CASAMBI

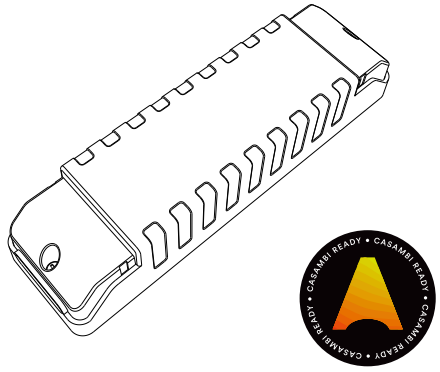
可编程恒流调光驱动

Rayrun

HDL35CB(-B/-E)

特点

- 可通过App设置电流
- 全直流调光，物理无闪烁
- 输出电流可微调
- 渐变时间可调
- 顺滑调光曲线
- 单色CCT二合一机型
- 超低待机功耗
- 极佳的低亮度特性



简介

HDL35CB是一款35W的可编程LED恒流驱动。它有两种机型可供选择，-E机型仅支持单色应用，-B机型是单色和CCT二合一机型。本机的各类配置功能都可以通过Casambi app进行设置。

通过Casambi App可以调节本机的输出通道、额定电流、渐变时间和电流微调等各类参数。这些特性为LED灯具的配置和应用方式提供了多种选项。

该产品采用先进的全范围DC恒流调光方案，在整个调光范围内可实现完全的物理无闪烁。它还具有非常好的低亮度性能，可以营造非常优雅的低亮度环境和开关灯时的渐变体验。

设置输出电流和通道

本机的额定输出电流范围是200mA至1400mA，可以在Casambi app中进行设置。要设置电流和输出通道，请确保驱动处于通电状态且未配置工程。在Casambi App中，单击驱动图标并在弹出的菜单中选择“更改配置文件”选项（图 1）。额定电流和输出通道可以在列表中选择（图2）。

HDL35CB-B机型可以在CCT或单色模式中进行切换，当作为单色机型使用时，输出端子的暖白和冷白通道均可以连接灯具。



图1

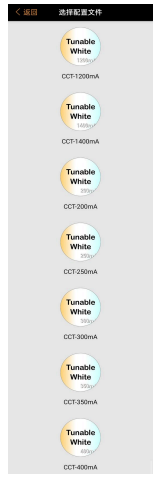


图2

本机的最大输出电压随额定输出电流的设置而变化。下表列出了不同电流设置下的最大输出电压和功率。

额定电流	200mA	250mA	300mA	350mA	400mA	500mA	600mA
最大输出电压	50V	50V	50V	50V	50V	50V	50V
最大输出功率	10W	12.5W	15W	17.5W	20W	25W	30W

额定电流	700mA	800mA	900mA	1050mA	1200mA	1400mA
最大输出电压	50V	43.7V	38.8V	33.3V	29.1V	25V
最大输出功率	35W	35W	35W	35W	35W	35W

LED灯具的自动适配

本机在每次通电时都会检验LED灯具的特性，当检测到灯具参数变化时，本机会自动进行灯具适配以达到最佳的调光效果。在适配过程中，灯具会明暗闪烁约10秒。适配完成后，驱动电源将完全匹配灯具，并实现0-100%DC恒流调光。

对于HDL35CB-B机型，必须确保两个LED通道的电压和电流特性相同，否则灯具自动适配将失败，驱动只能在单色模式下工作。

注意！本机默认电流为最小值以确保初始安装时不会损坏灯具。更改驱动电流时请不要设定高于灯具额定电流的值，否则可能会造成灯具的永久损坏！

高级功能 - 电流微调

要微调输出电流，请先在app上添加本机，然后双击驱动图标打开设置页面。在设置页面上，请点击“参数”部分中的“Current trim”项（图3）。输出电流可以按5%的步长，从额定电流的100%到50%进行微调（图4）。

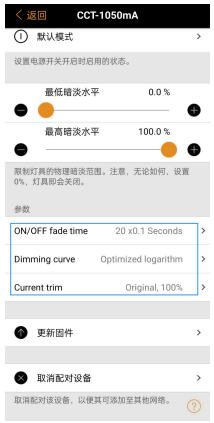


图3

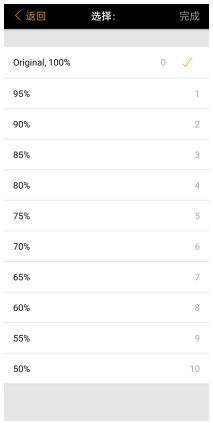


图4

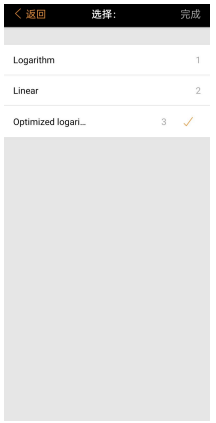


图5



图6

高级功能 - 更改调光曲线

要更改调光曲线，请先在app上添加本机，然后双击驱动图标打开设置页面。在设置页面，请点击参数部分中的“Dimming curve”项（图3）。用户可以选择Logarithm、Linear或者Optimized logarithm调光曲线进行更改（图5）。

Linear为线性调光曲线，可以使灯光的输出功率与app设置的亮度水平相匹配，但在高亮度水平下，人眼能感知的亮度变化不明显。

Logarithm为对数调光曲线，可以在整个亮度范围内产生较明显的亮度变化，使人眼能够明显感知亮度的调整。

Optimized logarithm为优化对数调光曲线，它介于线性与对数之间，亮度调节效果相对均衡。

高级功能 - 开/关机渐变时间调整

要调节开/关机渐变时间，请先在app上添加本机，然后双击驱动图标打开设置页面。在设置页面，请点击参数部分中的“ON/OFF fade time”项（图3）。渐变时间的可调范围是0到25.5秒，用户可以按0.1秒的步长，从0到255的范围内输入数值进行调整（图6）。

规格

型号	HDL35CB-B	HDL35CB-E
功能	2合1（冷暖白/单色）	单色
额定最大功率	35W	
输入电源	AC 180-240V	
功率因数	>0.9	
效率	>85%	
输出电压	0-50V 直流	
额定输出电流(mA)	200, 250, 300, 350, 400, 500, 600, 700, 800, 900, 1050, 1200, 1400	
渐变时间	0-25.5秒可调	
输出电流微调	100%到50%，步长5%	
调光方式	全直流线性调光	
待机功耗	<0.5W	
工作环境温度	-20~50°C	
外壳最高允许温度	90°C	
尺寸	41x30x150mm	